

PRACTICE TEST 2 - CHAPTER 3Beginning and Intermediate Algebra by Messersmith, 4th edition

1. a. Determine if $y = -3$ is a solution to the equation. $13y + 5 = -33$
b. Determine if $y = -3$ is a solution to the equation. $13y + 6 = -33$

(2-14) Solve each equation:

2. $c + 3 = -12$
 3. $-3y = -9$
 4. $3y + 29 = 11$
 5. $\frac{3}{8}a - 2 = 7$
 6. $-10 = -12g + 1 + 6g + 5$
 7. $2(y + 5) + 3(y + 2) = 31$
 8. $9 - (8p - 5) + 4p = 6(2p + 1)$
 9. $4(3q + 6) - 12(q - 3) = q - 3(q + 6)$
 10. $\frac{3}{4}y + \frac{1}{2} = \frac{1}{2}y + \frac{5}{4}$
 11. $\frac{3}{4}(x + 7) + \frac{1}{2}(3x - 5) = \frac{9}{4}(2x - 1)$
 12. $0.12(5p - 1) - p = 0.15(7 - 2p)$
 13. $0.4k + 0.3(20 - k) = 0.1k + 6$
 14. $2d + 7 = -4d + 3(2d - 5)$
15. Marcus made \$24 more than Joel's weekly salary. If x represents Joel's weekly salary, write an expression for Marcus' weekly salary.
16. Pat needs to bring 204 cookies to her friend's party. She has already baked x cookies. Write an algebraic expression for the number of cookies Pat still needs to bake.
17. A 60 inch board is to be cut into two pieces so that one piece is twelve inches shorter than the other. Find the length of the shorter piece.

18. Ethan has a 27 foot long piece of rope that he will cut into two pieces. One piece will be $\frac{1}{8}$ the length of the other piece. Find the length of the longer piece.

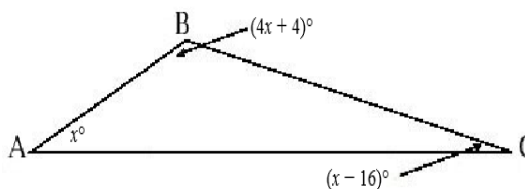
19. The sum of two consecutive integers is 157. Find the larger of the two integers.

20. Substitute the given values into the formula $I = PRT$ and solve for the remaining variable. If $I = 300$ when $R = 0.04$ and $T = 2$, find P .

21. Substitute the given values into the formula $P = a + b + c$ and solve for the remaining variable. If $P = 8.5$, $b = 2$, and $c = 3$, find a .

22. Substitute the given values into the formula $V = \frac{1}{3}\pi r^2 h$. If $V = 98\pi$, $r = 7$, find h .

23. Find each angle measure.



24. An angle is 9° less than eight times its complement. Find the measure of the angle.

(25-30) Solve the inequality. Graph the solution set and write the solution set in interval notation.

25. $y < -5$
26. $y - 6 \leq -15$
27. $-4y \leq 18$
28. $9y + 6 > 12$
29. $1 - 6x \geq -3$
30. $30 + 8x > 6 - 13x$

MATH0361 Practice Test 2 Answers:

1. a. NO b. YES

2. $c = -15$

3. $y = 3$

4. $y = -6$

5. $a = 24$

6. $g = 8/3$

7. $y = 3$

8. $p = 1/2$

9. $q = -39$

10. $y = 3$

11. $x = \frac{20}{9}$

12. $p = -11.7$

13. All real numbers

14. \emptyset

15. $x + 24$

16. $204 - x$

17. 24 inches

18. 24 feet

19. 79

20. $P = 3750$

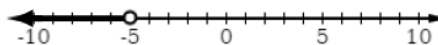
21. $a = 3.5$

22. $h = 6$

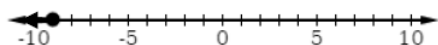
23. $16^\circ, 32^\circ, 132^\circ$

24. 79°

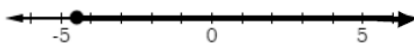
25. $(-\infty, -5)$



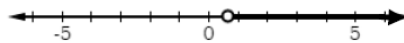
26. $(-\infty, -9]$



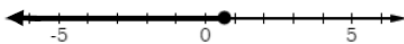
27. $[-\frac{9}{2}, \infty)$



28. $(\frac{2}{3}, \infty)$



29. $(-\infty, \frac{2}{3}]$



30. $(-\frac{8}{7}, \infty)$

